

REMARKS

Preliminary Matters

Applicants thank the Examiner for acknowledging the claim to foreign priority and receipt of a certified copy of the priority document. Applicants also thank the Examiner for considering the references cited in the Information Disclosure Statement filed on September 5, 2006.

Applicants also request the Examiner to properly cite the non-patent literature document 'On Computing The Fast Fourier Transform' by Richard C. Singleton, which was relied upon to reject claims 4, 5, 14, and 15, on the PTO-892 form.

Claims

Claims 1-20 have been examined. By this Amendment, Applicants add new claims 21-22. Therefore, claims 1-22 are all the claims pending in the application.

Claim Rejections - 35 U.S.C. § 103

Claims 1 and 11

Claims 1 and 11 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 4,393,457 to New *et al.* ("New") in view of U.S. Patent No. 5,633,817 to Verhenne *et al.* ("Verhenne"). For *at least* the following reasons, Applicants respectfully traverse the rejection.

Applicants respectfully submit that claim 1 is patentable over New and Verhenne. For example, claim 1 recites a digital audio broadcast receiver having diverse fast Fourier transform (FFT) modes based on sizes of transmitted data, comprising, *inter alia*, an address generator for generating a *predetermined* number of write addresses. The Examiner contends that the data

address generator 42 in FIG. 2 of New corresponds to the claimed address generator, and col. 3, lines 42-55 of New disclose the claimed functionality of the address generator. Applicants respectfully submit that the data address generator 42 does not generate a *predetermined* number of write addresses as set forth in claim 1.

For instance, New is directed to a method for generating the “necessary address sequences” to perform a fast Fourier transform (FFT) (*see* New: Abstract, col. 1, lines 8-13). New discloses that to generate the necessary addresses, the output of the data address generator 42 is dependent on “instructions and parameters about the fast Fourier transform to be processed” (col. 3, lines 50-55, emphasis added). More particularly, the data address generator generates address sequences based on outputs of the butterfly counter 40 and the latch 48 (New, figure 2). The butterfly counter 40 output 52 provides row and column position counts of the FFT to be performed (col. 6, lines 23-31). The output of the latch 48 is the length of the FFT to be transformed (col. 6, lines 46-57). New states that:

“[i]n response to the address *select input values*, the data address generator 42 and the coefficient address generator 44 *convert the row count to the value specifying the corresponding address location in RAM or ROM*. The output of the address generators 42 and 44 are multiplexed onto a single 16-bit bus and provided as an address output to the ROM 28 and the RAM 34 (FIG. 1)” (col. 6, lines 60-67, emphasis added)

In light of the discussion above, it is clear that New does not disclose, teach, or suggest that the data address generator 42 generates a *predetermined* number of address sequences. On the contrary, the number of addresses generated by the data address generator 42 is completely dependent on the inputs it receives from the butterfly counter 40 and the latch 48.

As such, Applicants respectfully submit that New and Verhenne, alone or in combination, do not teach all the limitations of claim 1 in as complete detail as set forth in the claim.

Accordingly, Applicants respectfully request the Examiner to withdraw the 35 U.S.C. § 103(a) rejection.

Claim 11 recites features similar to those discussed above with respect to claim 1, i.e., claim 11 recites an operation method for a digital audio broadcast receiver comprising, *inter alia*, generating a *predetermined* number of write addresses. Therefore, Applicants respectfully submit that claim 11 is patentable over New and Verhenne for *at least* reasons similar to those given above with respect to claim 1.

Claims 2, 3, 6-10, 12, 13, and 16-20

Claims 2, 3, 6-10, 12, 13, and 16-20 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over New in view of Verhenne, and further in view of U.S. Patent No. 7,010,027 to Mestdagh *et al.* ("Mestdagh"). For *at least* the following reasons, Applicants respectfully traverse the rejection.

Claims 2, 3, 6-10, 12, 13, and 16-20 depend from independent claims 1 and 11. Mestdagh does not cure the deficient teachings of New and Verhenne with respect to claims 1 and 11. Therefore, claims 2, 3, 6-10, 12, 13, and 16-20 are patentable *at least* by virtue of their dependency.

Claims 4, 5, 14, and 15

Claims 4, 5, 14, and 15 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over New in view of Mestdagh, and further in view of "On computing the fast Fourier transform" by Richard C. Singleton ("Singleton"). For *at least* the following reasons, Applicants respectfully traverse the rejection.

As an initial matter, Applicants point out to the Examiner that claims 4-5 and 14-15 depend on claims 3 and 13, respectively. Claims 3 and 13 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over New, Verhenne, and Mestdagh.

Verhenne is not cited in rejected claims 4, 5, 14, and 15. The Examiner admitted that combination of New and Mestdagh, by itself, does not disclose all the features of the claims from which claims 4, 5, 14, and 15 depend. Therefore, Applicants submit that the rejection is improper.

Nonetheless, Applicants submit that since claims 4, 5, 14, and 15 depend on claims 1 and 11, and since Singleton does not cure the deficient teachings of New and Mestdagh with respect to claims 1 and 11, claims 4, 5, 14, and 15 are patentable *at least* by virtue of their dependency.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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